

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003304**Date Inspected:** 22-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Chih-Ming**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG side, bottom and deck panels and tower**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

Tower bay 1

This QA inspector was notified by Caltrans OSM QA task leader Albert Carreon that ZPMC had a problem with the fit up of tower skin plate identified as SA15A/F. Apparently during fit up of stiffeners to the skin plate, several of the fit up tables had broken loose from the floor anchors. This QA inspector was instructed to verify the flatness of the skin plate after fit up. QA checked the plate approximately 5000mm from each end and near the center by using a straight edge laid across the top of the stiffeners and measuring down to the plate at each end and in the center. The plate was found to be within 3mm of flat across its width. See attached pictures for more details. Detailed sketches and dimensions were drawn up by Mr. Carreon and submitted to first shift task leaders for review. It is not known at this time whether or not the skin plate is within tolerance.

OBG new assembly bay 2

QA performed 10% verification Magnetic particle Testing (MT) on stiffener to side plate fillet welds on side panel SP-008A. All welds examined appeared to conform to AWS D1.5 2002 and the contract documents.

QA observed ZPMC qualified welding personnel FCAW SEG-0120B-001 & 006 following the guide lines of WPS-B-T-2231-B-U2-F-1. QC monitored the welding process continuously throughout the evening. The welder

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ID and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 30 Amps: 290

Welder ID weld 006: 044795

Welder ID weld 001: 051356

QA observed ZPMC personnel flame straightening side panels SP-304A and SP-331A following the guide lines of approved standard flame straightening procedure defined in ZPMC WQCP section 11 and recorded on heat straightening report#s HSR1 (B)-1309 (SP-304A) and HSR1-(B)-1308 (SP-331A). According to the reports the distortion appeared to be caused by the welding process.

QA observed ZPMC Ultrasonic Testing (UT) technician UT tacked areas on Partial Joint Penetration (PJP) welds joining u-ribs to deck plate on deck panel DP-019-001.

QA observed ZPMC personnel fitting floor beams to the following OBG sections: section 4BW @ PP-026, section 3AW @ PP-022 and section 3AW @ PP-020.

Other general observations include ZPMC personnel fitting and welding OBG east fixture, OBG temporary support columns, grinding and weld bevel prep on various OBG components.



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Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
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Reviewed By:	Cuellar,Robert	QA Reviewer
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